Amendments to the Specification

Please add the following paragraph between the title and the first line of text as follows:

This is a Division of Application No. 09/806,236 filed March 28, 2001, which in turn is the U.S. National Stage of International Application No. PCT/JP00/05412 filed August 11, 2000. The entire disclosures of the prior applications is hereby incorporated by reference herein in their entireties.

Please replace the paragraph beginning on page 21, line 7, with the following rewritten paragraph:

Fig. 3A is a schematic diagram to show directions of the fast axis at birefringence measuring points P_{31}, P_{32}, P_{33}, and P₃₄ and P_{35} located at respective distances r_1, r_2, r_3, r_4, and r_5 from the center O on the effective section of another optical member L_3, similar to Fig 1A. In this case, the directions of the fast axis, W_{31}, W_{32}, W_{33}, W_{34}, and W_{35}, at the measuring points P_{11} to P_{14} are such that those at the measuring points P_{31} to P_{33} are parallel to the direction of the straight line Q_3, i.e., to the radial direction, but those at the measuring points P_{33}, P_{34} are perpendicular to the radial direction. Therefore, the distribution in the radial direction of the signed birefringence values A_{31} to A_{35} at the measuring points P_{31} to P_{35} is depicted, for example, as a profile of Fig. 3B.

Please replace the paragraph beginning on page 54, line 23, with the following rewritten paragraph:

The wafer W is mounted on a leveling stage (not illustrated) and this leveling stage is set on a Z-stage 301 which can be finely moved in the optical-axis direction (Z-direction) of

the projection optical system by a driving motor 320330. The Z-stage 301 is mounted on an

XY stage 315 which can be moved in the two-dimensional directions (XY directions) in the

step-and-repeat method by the driving motor 320. The reticle R is mounted on a reticle stage

306 which is two-dimensionally movable in the horizontal plane. The exposure light from the

exposure light source 303 uniformly illuminates the pattern formed in the reticle R through the

illumination optical system 302 and the pattern image of the reticle R is printed into a shot

area of the wafer W by the projection optical system 304. This exposure light can be one of

the wavelength selected from 248 nm (KrF excimer laser), 193 nm (ArF excimer laser), 157

nm (F_2 laser), and so on.

Please replace the paragraph beginning on page 58, line 13, with the following

rewritten paragraph:

The exposure light source 303 (not illustrated) emits approximately collimated light

having the wavelength of 248 nm (KrF excimer laser), 193 nm (ArF excimer laser), 157 nm

(F_2 laser), or the like, and the cross-sectional shape of the collimated light at this time is

rectangular. The collimated light from this exposure light source 303 is incident to a beam

shaping optical system 20 as a beam shaping portion for shaping the beam into a

predetermined sectional shape. This beam shaping optical system 20 is comprised of two

cylindrical lenses (20A, 20B) each having a refractive power in the Y-direction; the source-

side cylindrical lens 20A has a negative refractive power to diverge the X-directional beam,

and the cylindrical lens 20B on the illuminated surface side has a positive refractive power to

condense the diverging beam from the source-side cylindrical lens A20A into parallel light.

Accordingly, after the collimated light from the exposure light source 303 passes through the

beam shaping optical system 20, the Y-directional beam width is expanded, so that the cross

section of the beam is shaped into a rectangular shape having a predetermined size. The beam

shaping optical system 20 may also be comprised of a combination of cylindrical lenses of

positive refractive power, an anamorphic prism, or the like.

Please replace the paragraph beginning on page 63, line 9, with the following rewritten

paragraph:

The projection optical system 304 illustrated in ~~Fig. 11~~Fig. 9 is constructed by

combining the optical elements so as to satisfy the placement condition that the signed

birefringence characteristic value of the entire projection optical system is not less than -0.5

nor more than +0.5 nm/cm. The optical members are also combined with each other so as to

further satisfy the placement condition that the Strehl value of signed birefringence value based

on the effective path of the entire projection optical system is not less than 0.93. Further, the

optical members used are those satisfying the following conditions; the signed birefringence

values around the center of the effective section are -0.2 to +0.2 nm/cm; the radial distribution

of the mean signed birefringence values has no extremum except at the center; the difference

ΔB_i between maximum and minimum of the mean signed birefringence values is not more than

2.0 nm/cm; the maximum F_i of slope of the distribution curve in the radial direction of the

mean signed birefringence values B_{ij} is not more than 0.2 nm/cm per 10 mm of radial width.